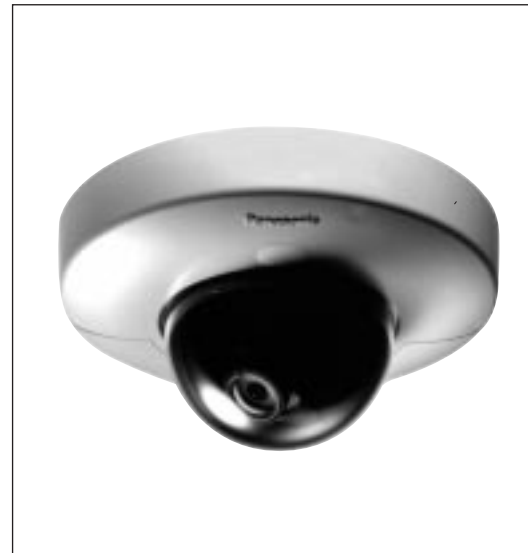


Operating Instructions

Color CCTV Camera
WV-CF202
CCTV Camera
WV-BF102

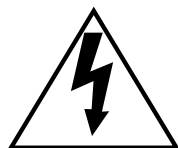
ENGLISH



FRANÇAIS

Panasonic®

Before attempting to connect or operate this product,
please read these instructions completely.



SA 1965

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



SA 1966

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For U.S.A

Warning:

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

The serial number of this product may be found on the top of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

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ENGLISH

PREFACE

Panasonic's WV-CF202/WV-BF102 CCTV camera is designed for advanced video surveillance with a new concept, mini-dome shape, and introduces a new level of the high picture quality and high resolution through the use of a 1/4-inch interline transfer CCD image sen-

sor having 512 horizontal pixels (picture elements) and one chip signal processor. Additionally, optional lenses with various angular of view are available to meet your needs.

FEATURES

WV-CF202

- Signal-to-noise ratio of 46 dB
- Maximum illumination of 10 lux (1 foot-candle)
- Horizontal resolution of 330 lines

WV-BF102

- Signal-to-noise ratio of 46 dB
- Maximum illumination of 0.5 lux (0.05 foot-candle)
- Horizontal resolution of 370 lines

PRECAUTIONS

1. Do not attempt to disassemble the camera.

To prevent electric shock, do not remove screws or covers.

There are no user serviceable parts inside. Ask a qualified service person for servicing.

2. Handle the camera with care.

Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.

3. Do not expose the camera to rain or moisture, or try to operate it in wet areas.

This model is produced for indoor use. If the camera is exposed to rain or moisture, turn the power off immediately and ask a qualified service person for servicing. Moisture can damage the camera and also create the danger of electric shock.

4. Do not use strong or abrasive detergents when cleaning the camera body.

Use a dry cloth to clean the camera when dirty. In case the dirt is hard to remove, use a mild detergent and wipe gently.

5. Never face the camera towards the sun.

Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, blooming or smear may be caused.

6. Do not use chemical e.g. thinner or benzene for cleaning the lens.

When the lens becomes dirty, wipe it using a soft cloth or a cloth soaked with alcohol. Using chemical e.g. thinner or benzene for cleaning the lens may damage the surface of the lens.

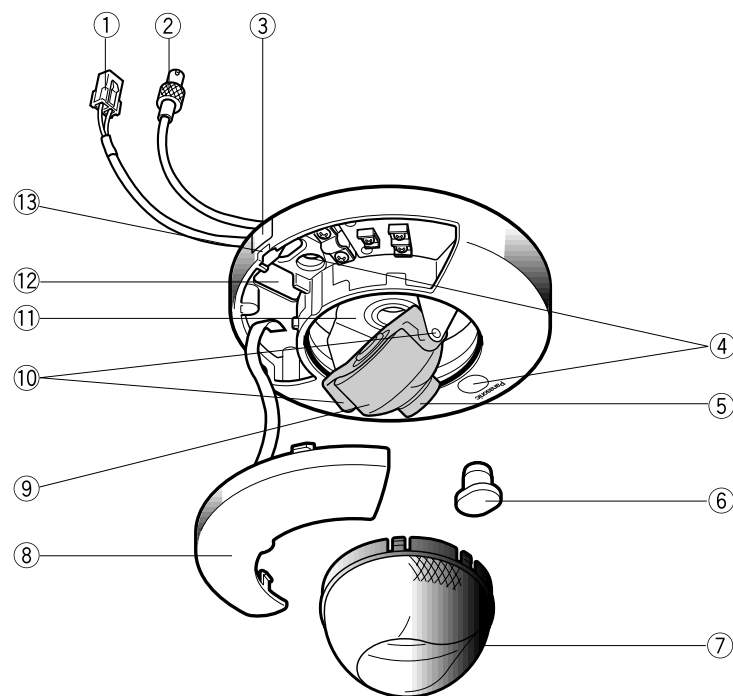
7. Do not operate the camera beyond the specified temperature, humidity or power source ratings.

Use the camera under conditions where temperature is between -10°C - $+50^{\circ}\text{C}$ (14°F - 122°F), and humidity is below 90%. The input power source is 12V DC.

Caution:

To prevent fire or electric shock hazard, a UL listed wire (VW-1, style 1007) should be used for 12V DC Input Terminals.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS



① **DC Power Input Connector**

This connector is for connecting the 12V DC power supply cable.

② **Video Output Connector**

This connector is for connecting with the VIDEO IN connector of the monitor.

③ **Cable Exit**

Pass the cables through this concave when installing on the ceiling/wall.

④ **Camera Mounting Screw Holes**

Mount the camera by fixing with screws through these holes.

⑤ **Lens**

Rotate this lens to adjust the focus.

⑥ **Rubber Cap (standard accessory)**

Attach this cap on the camera mounting screw hole.

⑦ **Dome Cover**

This protects the camera head.

⑧ **Panel Cover**

Open this cover when installing the camera or connecting the cables.

⑨ **Camera Head**

This adjusts the tilting angle of the camera.

⑩ **Lens Holder**

These holders bring the picture in an upright position on the monitor screen.

⑪ **Panning Table**

This adjusts the panning angle of the camera.

⑫ **Cable Hole**

Pass the cables through this hole when installing on the ceiling/wall.

⑬ **Panel Cover Detaching Slit**

Insert a tool, such as a screwdriver (–), into this slit to open the panel cover.

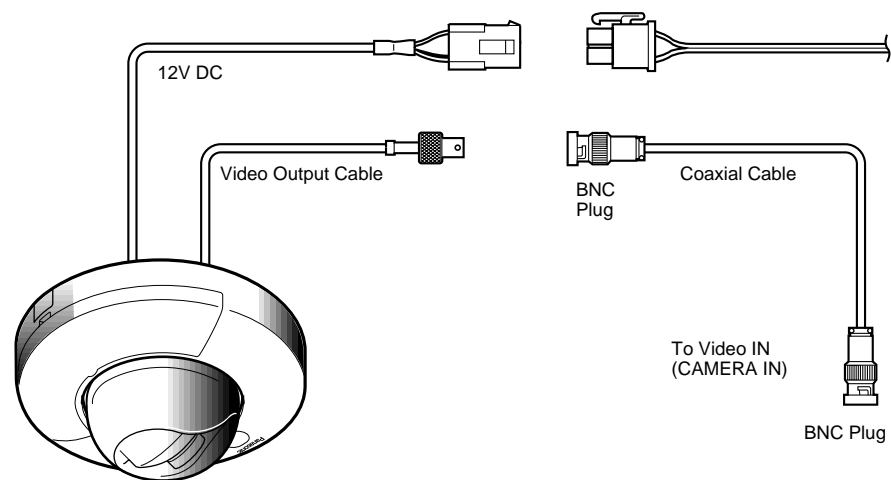
Cautions:

- Connect to 12 V DC (10.5 V-16 V) class 2 power supply only. Make sure to connect the grounding lead to the GND terminal when the power is supplied from a 12 V DC power source.
- To prevent fire or electric shock hazard, use a UL listed wire VW-1, style 1007 cable for the Input Terminal.

CONNECTION

Precaution:

The following connections should be made by qualified service personnel or system installers.



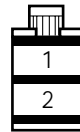
- **Power supply connection**

Recommended wire gauge sizes for 12 V DC line.

Copper wire size (AWG)		#24 (0.22mm ²)	#22 (0.33mm ²)	#20 (0.52mm ²)	#18 (0.83mm ²)
Length of Cable (Approx.)	(m)	20	30	45	75
	(ft)	65	100	160	260

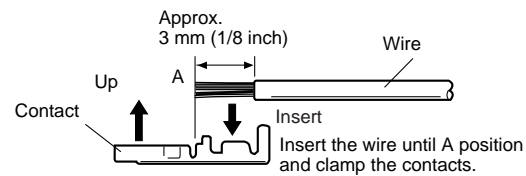
Accessory Connector Information

Pin No.	Power Source	Cable Color
1 :	Ground	Black
2 :	DC 12V	White



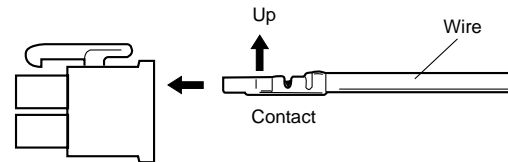
How to assemble the cable with the accessory connector

Strip back the cable jacket approx. 3 mm (1/8 inch) and separate the individual conductors.



Prepare the individual conductors for clamping. Use MOLEX band tool part number 57027-5000 (for UL-Style Cable UL1015) or 57026-5000 (for UL-Style UL1007) for clamping the contacts.

After clamping the contacts, push them into the proper holes in the accessory connector of this camera until they snap in place.



Cautions

- Shrinking the cable-entry seal is a one-time procedure. Do not shrink the cable-entry seal until it has been ascertained that the unit is functioning. CONNECT THIS TO 12V DC CLASS 2 POWER SUPPLY ONLY.
- To prevent fire or electric shock hazard, the UL listed wire VW-1 style 1007 should be used for the cable for 12V DC Input Terminals.

INSTALLATION

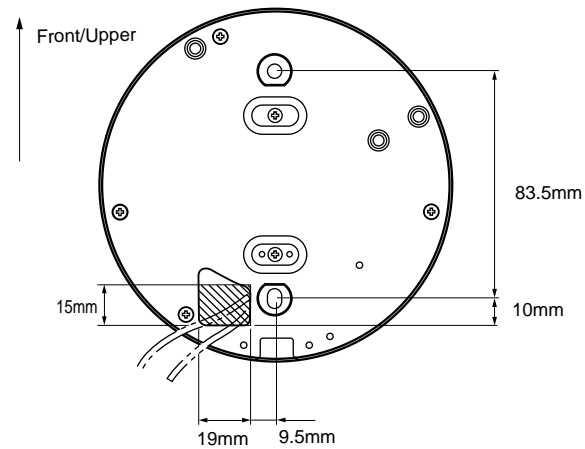
Important Notices:

- The following installation should be made by qualified service personnel or system installers and should confirm to all local codes.
- Be sure to use a ceiling board having enough strength to support this camera.

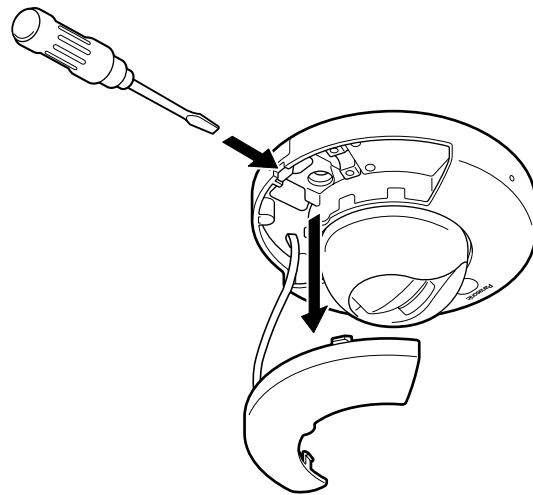
Mounting the camera when you can make a hole for the cables on the ceiling/wall.

When you can make a hole for the cables on the ceiling/wall where the camera to be installed, proceed as follows;

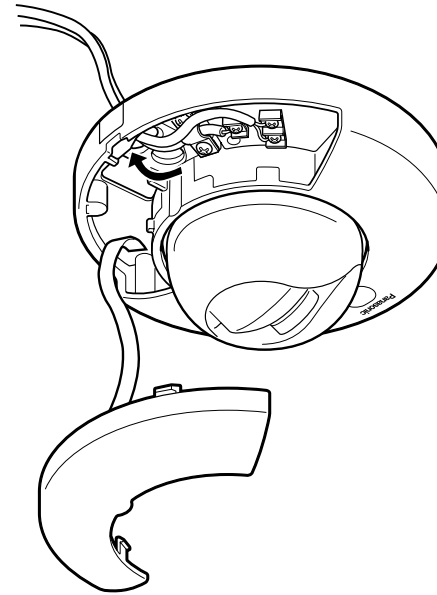
1. Make a hole on the ceiling/wall after checking the place the camera to be installed with making reference to the diagram right.



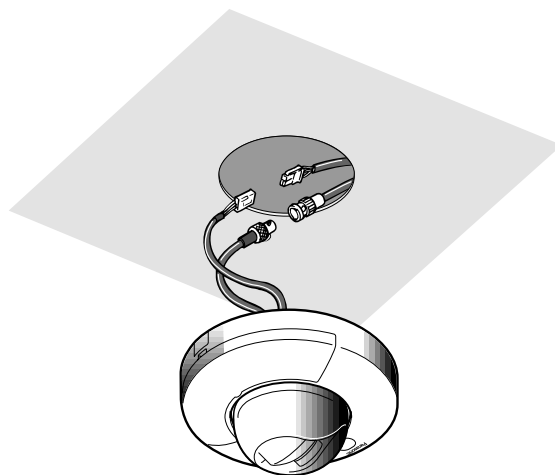
2. Open the panel cover by using a tool, such as a screwdriver (-).



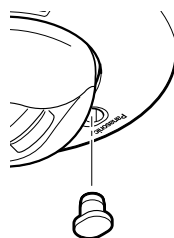
3. Pass the cables through the cable hole.



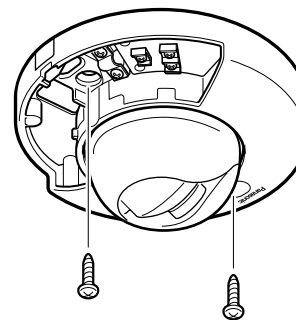
4. Connect the cables as described in the previous section "CONNECTION".



5. Remove the rubber cap from the camera mounting screw hole on the camera cover.

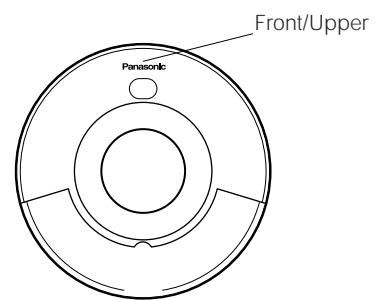


6. Mount the camera onto the ceiling/wall by fixing with the mounting screws.

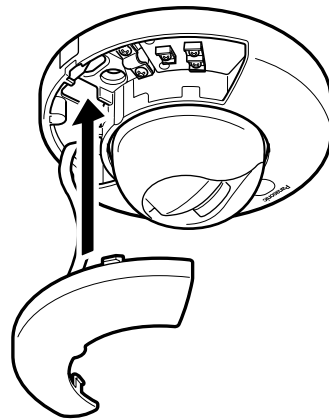


Note: Before fixing with the screws, confirm the direction of the camera by checking the position of the logo "Panasonic" on the camera cover.

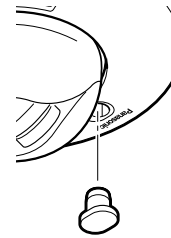
"Panasonic" logo indicates the front (when installed on the ceiling)/upper (when installed on the wall) direction of the camera.



7. Close the panel cover. Make sure the panel cover is closed properly and firmly.



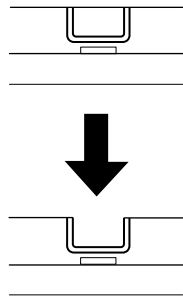
8. Attach the rubber cap into the camera mounting screw hole on the camera cover.



Mounting the camera when you can not make a hole for the cables on the ceiling/wall.

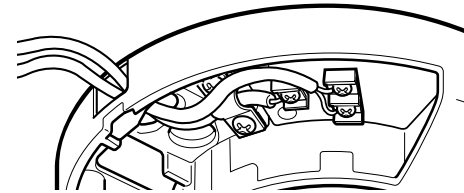
When you can not make a hole for the cables on the ceiling/wall where the camera to be installed, proceed as follows;

1. When you can not make a hole in the ceiling/wall to pass the cables through, cut and remove the plastic part to make the concave for cables.

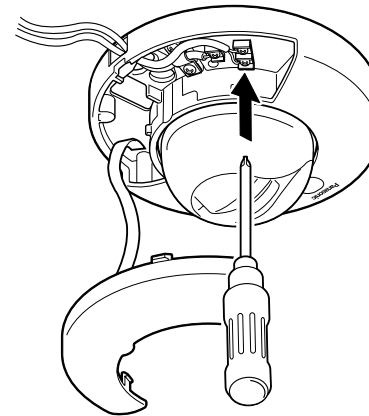


2. Open the panel cover by using a tool, such as a screwdriver (-).

3. Detach the video output connector cable and the DC power input connector cable from the camera.



4. Pass the cables through the concave, and attach the cables to the camera again.

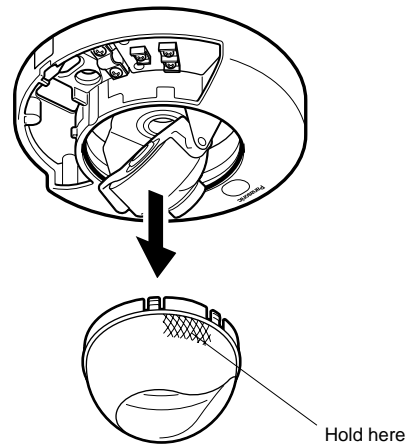


5. Connect the cables as described in the previous section "CONNECTION".
6. Remove the rubber cap from the camera mounting screw hole on the camera cover.
7. Mount the camera onto the ceiling/wall by fixing with the mounting screws.
Note: Before fixing with the screws, confirm the direction of the camera by checking the position of the logo "Panasonic" on the camera cover.
"Panasonic" logo indicates the front (when installed on the ceiling)/upper (when installed on the wall) direction of the camera.
8. Close the panel cover. Make sure the panel cover is closed properly and firmly.
9. Attach the rubber cap into the camera mounting screw hole on the camera cover.

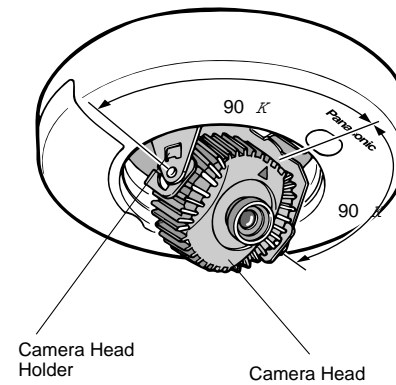
ADJUSTMENT

1. Panning

1. Remove the dome cover from the camera.

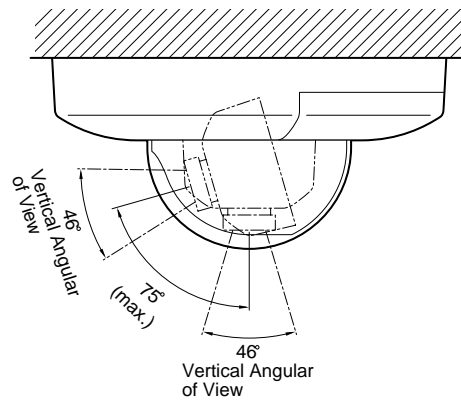


2. Adjust the direction of the camera head by moving the panning table. To move the panning table, hold the camera head holder and move it. The panning table can be moved $\pm 90^\circ$ (180°).



2. Tilting the camera

The tilting angle is shown below.
The camera head can be tilted $\pm 75^\circ$ (150°).

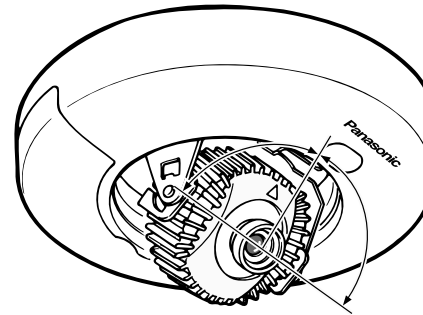


Notes:

- Uprighting the picture on the monitor screen is usually necessary. (Refer to 3. Uprighting the picture.)
- The shadow of the dome cover will be taken by the camera when the camera head is tilted close to the camera cover. When an optional lens is installed on the camera, see the operational instruction of the lens and check the angular field of view.

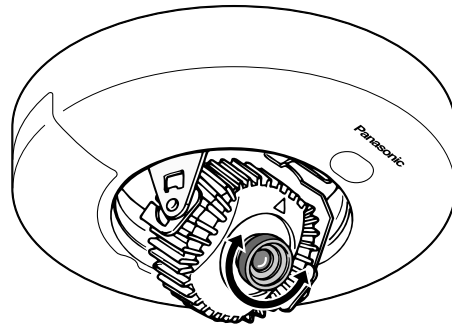
3. Uprighting the picture

Bring the picture on the monitor screen in an upright position by turning the camera head. To turn the camera head, hold the camera head and turn it. The camera head can be turned $\pm 90^\circ$ (180°).

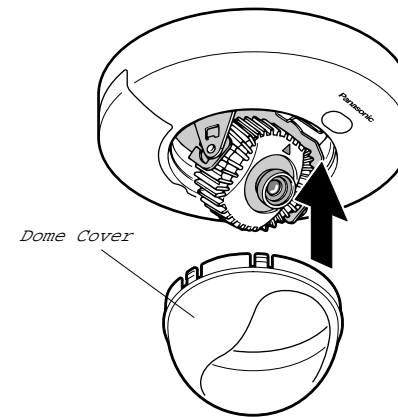


4. Focusing

Adjust the focus by turning the lens.

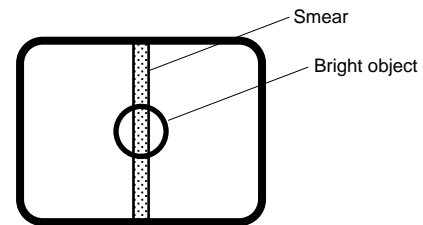


After adjusting the focus, attach the dome cover to the camera body.



PREVENTION OF BLOOMING AND SMEAR

When the camera is aimed at a bright light, such as a spotlight, or a surface that reflects bright light, smear or blooming may appear. Therefore, the camera should be operated carefully in the vicinity of extremely bright objects to avoid smear or blooming.



SPECIFICATIONS

WV-CF202

Pick-up Device:	512 (H) x 492 (V) pixels, Interline Transfer CCD
Scanning Area:	3.16 (H) x 2.72 (V) mm (Equivalent to scanning area of 1/4" pick-up tube)
Scanning:	525 lines / 60 fields / 30 frames
Horizontal:	15.734 kHz
Vertical:	59.94 Hz
Synchronization:	Internal
Video Output:	1.0 V[p-p] NTSC composite 75 Ω / BNC connector
Horizontal Resolution:	330 lines
Signal-to-Noise Ratio:	46 dB (AGC OFF, weight ON)
Minimum Illumination:	10 lx (1 foot-candle) at WIDE end
Angular Field of View:	Horizontal: 62° Vertical: 46°
Electronic Light Control:	Equivalent to continuous variable shutter speed between 1/60 s and 1/10 000 s
White Balance:	ATW
Ambient Operating Temperature:	-10°C - +50°C (14°F - 122°F)
Ambient Operating Humidity:	Less than 90%
Power Source:	12V DC, 110mA
Dimensions:	64 (H) x 130 (D) mm [2-1/2" (H) x 5-1/8" (D)]
Weights:	0.3 kg (0.7 lbs.)

Weights and dimensions indicated are approximate.
Specifications are subject to change without notice.

WV-BF102

Pick-up Device:	512 (H) x 492 (V) pixels, Interline Transfer CCD
Scanning Area:	3.16 (H) x 2.72 (V) mm (Equivalent to scanning area of 1/4" pick-up tube)
Scanning:	525 lines / 60 fields / 30 frames
Horizontal:	15.734 kHz
Vertical:	59.94 Hz
Synchronization:	Internal
Video Output:	1.0 V[p-p] EIA composite 75 Ω / BNC connector
Horizontal Resolution:	370 lines
Signal-to-Noise Ratio:	46 dB (AGC OFF)
Minimum Illumination:	0.5 lx (0.05 foot-candle) at WIDE end
Angular Field of View:	Horizontal; 62° Vertical; 46°
Electronic Light Control:	Equivalent to continuous variable shutter speed between 1/60 s and 1/10 000 s
Ambient Operating Temperature:	-10°C - +50°C (14°F - 122°F)
Ambient Operating Humidity:	Less than 90%
Power Source:	12V DC, 80mA
Dimensions:	64 (H) x 130 (D) mm [2-1/2" (H) x 5-1/8" (D)]
Weights:	0.3 kg (0.7 lbs.)

Weights and dimensions indicated are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

Rubber Cap.....	1
Connector for Power.....	1

OPTIONAL ACCESSORIES

Lenses	WV-LXY18C4, WV-LXY23C4, WV-LXY47C4
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Panasonic

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